

Hot Springs National Park Bathhouse Row:  
Ozark Bathhouse: Mechanical & Piping Systems  
One mile North of US Highway 70  
on State Highway 7  
Hot Springs National Park  
Garland County  
Arkansas

HAER NO. AR-4-F

HAER  
ARK,  
26-HOSP,  
3-F

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
National Park Service  
P.O. Box 37127  
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

HAER  
ARK,  
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3-F-

HOT SPRINGS NATIONAL PARK, BATHHOUSE ROW:  
OZARK BATHHOUSE: MECHANICAL AND PIPING SYSTEMS

HAER NO. AR-4-F

Location: Hot Springs National Park, Garland County,  
Arkansas. One mile north of US Highway 70  
on State Highway 7 (Central Avenue).

Date of Construction: 1922

Present Owner: National Park Service

Present Use: Presently vacant.

Significance: The Ozark Bathhouse is part of Bathhouse  
Row, which represents a typical American  
Spa. The spring piping, heating and  
ventilation systems are examples of early  
twentieth century state-of-the-art  
technology.

Historian: Diana Prideaux-Brune  
August 1987

[See HAER No. AR-4 for an overview history of Bathhouse Row.]

[See HABS No. AR-28 (A through I) for documentation of the architectural  
features of the bathhouses on Bathhouse Row.]

In the design of the Ozark, architects Mann and Stern made a definite departure from the established heating and ventilation systems in the other bathhouses on Bathhouse Row, but the reason for their choice is unclear. Whether the designers were dissatisfied with the forced-air system used in their previous bathhouses, or whether the smaller volume of the Ozark suggested a different system has not been established. For whatever reasons, the Ozark Bathhouse uses a unit heating and ventilation system.

In each of zone of the Ozark (cooling, pack, bath, and dressing rooms) early unit heaters and ventilators can be found. These consist of a steam coil radiator surmounted by two small squirrel-cage blowers within a sheet-metal cabinet. Outside, inside, or a combination of outside and inside air was drawn into the ventilators by the blowers and forced through the radiator coils. The air was then released into the room. The advantage of this type of system was that each unit could be individually adjusted for specific needs. The flexibility holds true for the multi-zoned systems of other bathhouses, but it seems the smaller Ozark, such a system might have been prohibitive. The vitiated air was released through ducts into the attic. A system of radiators complimented the unit ventilators in areas with greater heat requirements.

Two sectional cast iron boilers supplied steam to the unit heaters and radiators. A 38-inch fan was installed at the end of an air tunnel to provide ventilation to the basement, and outside air to the unit heaters not located against an outside wall.

## MECHANICAL EQUIPMENT INVENTORY

### BOILERS:

Two upright, sectional, cast iron boilers 5 1/2 feet long, 5 1/2 feet high, supply steam to direct heating radiators and to coils in unit heaters. The boilers have used both oil and gas. Headers arranged so boilers can work separately or in tandem.

#### No. 4 "Ideal Redflash"

American Radiator and Standard Sanitary Corp.

AR & SS rating

series 8B

oil fueled without baffles

hand-fired 4000 6400

gas converted

#### Ideal Steam Boiler

American Radiator Co.

size: S-36-8

series #: 3636-1A

#### Minneapolis-Honeywell Regulator Co.

boiler water control

serial #: C402A5x4

### CONDENSATE RETURN:

A vacuum system is in the boiler pit. Any manufacturer markings have been obscured.

### BASEMENT VENTILATION FAN:

A 38-inch diameter sheet-metal fan is set into a concrete frame at the end of an air tunnel, providing air flow from the exterior into the boiler pit.

### UNIT VENTILATORS:

Units set against an outside wall, or adjacent to a ventilation shaft, heat and circulate air into the building.

Moline Heat Co., Moline, IL

UniVent

Patents: Oct.27,1908; Apr.24,1917; Mar.4,1919

TEMPERATURE CONTROL:

Thermostats control the radiators and heating coils within the unit ventilators.

Thermostats:

Minneapolis-Honeywell Regulator Company

RADIATORS:

Radiators using both a single pipe for steam supply and condensate return, and a two pipe type are used. All radiators are floor-mounted.

LAUNDRY:

Washing Machines:

American Laundry Machinery Industries  
Division of McCraw Edison Co., Cincinnati, OH  
2 HP, 60 cycle, 3 phase  
serial #: 2158-A22-R560-R546-R547, 2158-M-2753

Iron:

Chicago Flatwork Ironer  
Chicago Dryer Co.  
Model #: GA16-110F  
Serial #: 25162  
60 cycle, 3 phase, 220 volt  
1000 BTU gas operation

Dryers:

American Thermostatic  
1/2 HP electric motor

Spinner:

American Laundry Machine Co.  
Serial #: 344-Z1-M-31345  
1085 RPM basket speed, 45 second brake time  
3 HP electric motor

THERMAL WATER FLOW METER: Hays-Cochrane flow meter

[See HAER No. AR-4 for bibliography.]